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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/532,492	02/03/2006	Shinji Furusho	YOSHID0019	4362		
24203	7590	05/06/2010	EXAMINER			
GRIFFIN & SZIPL, PC SUITE PH-1 2300 NINTH STREET, SOUTH ARLINGTON, VA 22204				SOMERS, MARC S		
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/532,492	FURUSHO, SHINJI	
	<b>Examiner</b>	<b>Art Unit</b>	
	MARC SOMERS	2159	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 15 March 2010.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3,5-11,15-26 and 29-34 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 17,20,23,26 and 29-34 is/are allowed.  
 6) Claim(s) 1-3,5-11,15,16,18,19,21,22,24 and 25 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

1. The amendments were received on 3/15/2010. Claims 1-3, 5-11, 15-26, and 29-34 are pending where claims 1-3, 5-11, and 15-26 were previously presented, claims 4, 12-14, 27, and 28 were cancelled, and claims 29-34 are newly added.

### ***35 USC § 112***

2. The applicant has amended the claims to cancel claims 4, 12-14, 27, and 28 therefore the rejection to those claims have been withdrawn. With regard to claims 5-8 and 15-26, the Examiner construed that claims 5-8 and 15-26 required that the appropriate independent claim (i.e. claims 1, 3, or 29) to be executed/Performed first in order to create the second pointer array and the second value list. The applicant did not traverse the Examiner's interpretation therefore the interpretation as noted above is still being used and the 35 USC 112, second paragraph rejection to claims 5-8 and 15-26 has been withdrawn.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-11, 15-16, 18-19, 21-22, and 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinji Furusho in JP2000339390 (hereafter

referred to as the “Kosho document” or “Kosho”; the inventor is indicated to be Kosho Shinji; however, the affidavit filed on 7/6/2009 indicates otherwise), as provided by the Applicant (an Examiner-obtained translation of the publication is being used for the rejection) in view of Shinji Furusho in US Patent 6,721,751 (supplied in IDS; affidavit filed 7/6/2009 indicates that this reference has the same teachings as the Kosho document since they are the same application).

5. With regard to claim 1, Kosho and Furusho disclose a data processing method for extracting a subset from tabular format data viewed as an array of records, each record including item values belonging to items (see Kosho and Furusho, the Abstract), the method comprising the steps of:

a) constructing the tabular format data by creating information blocks corresponding to respective items, each information block including a first value list in which the item values are stored in order of item value numbers corresponding to the item values and a first pointer array in which pointer values indicating the item value numbers are stored in order of unique record numbers (see Kosho, Abstract and see paragraph [0005]; see Furusho, abstract and col 2, lines 4-11);

b) creating an ordered set array containing record numbers of records selected from the array of the records, wherein the selected record numbers are arranged in a specified order in the ordered set array (see Kosho, paragraphs [0005] and [0012]; a sorting array or ordered set array is created/generated where the array contains records from the array of records or tabular format data; see Furusho, col 4, lines 15-20; the

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count array is used as an array that is ordered or arranged in a specified order based on the field values);

c) arranging a pointer value in the first pointer array at a position indicated by each of the record numbers of the ordered set array into an item value number array at a position corresponding to a position where the record number is arranged in the ordered set array (see Kosho, paragraphs [0005], [0006], [0012], and [0013]; an item value number array or position direction array is used where the contents of the array are sorted/organized based on the ordered set array or sorting array; see Furusho, col 4, lines 20-23; the pointer values or item values for the record numbers are arranged into a position indicating array at a position corresponding to the count array or ordered set array);

and d) creating a second value list storing value elements contained in the item value number array and a second pointer array storing position elements indicating elements in the second value list corresponding to the record numbers by referring to the item value number array (see Kosho, paragraph [0012] and see Furusho, col 4, lines 23-32; a second pointer array, or sort array, is created based on the positions corresponding to the item value number array or position indicating array and further, the second value list is created by presenting the values based on the order of the sort array or second pointer array which is based on the position indicating array or item value number array),

wherein a value in the first value list is specified from a record number of the ordered set array through an element in the second pointer array at a position indicated

by the record number and an element in the second value list at a position indicated by the element in the second pointer array (see Kosho, paragraph [0012]; see Furusho, col 4, lines 15-32; the data in a first value list of the information block is accessed via a second pointer array, or sort array, based on the position/number of the record and also the data in the first value list is referred to by the second value list of the information block based on the sorted positions of the records in a similar manner as sorted in the second pointer array).

6. Claim 3 is substantially similar to claim 1 and is thereby rejected for the same reasons as claim 1 above.

7. Claims 9 and 11 are directed to data processing programs (see Kosho, paragraph [0019]) and are substantially similar to claims 1 and 3 above. As such, claims 9 and 11 are rejected for the same reasons noted above.

8. With regard to claims 2 and 10, Kosho and Furusho disclose sorting the elements in the item value number array, creating a third array in a state when a duplicate value is excluded, and substituting the created third array for the second value list; and creating the second pointer array by converting the elements in the item value number array to reflect the sort of the elements in the item value number array and the exclusion of the duplicate value (see Kosho, paragraphs [0012], [0014], [0015], and [0016]; see Furusho, col 4, lines 15-32, line 49 through col 6, line 21; overlapping or

duplicate values are found and removed/excluded so that the value list or third array maintains the integrity of the information block by keeping track of the various distinct values of the information block while using a new/modified pointer array that is sorted based on the original sort order).

9. With regard to claims 5 and 15-16, Kosho and Furusho disclose specifying an element indicating an item value as a retrieval object among elements in the second value list; arraying a value indicating that a flag is on at a position corresponding to a position of a specified element in a flag array having the same size as the second value list; specifying an element of the second pointer array indicated by a record number in the ordered set; referring to a state of a flag at a position indicated by an element of the second pointer array in the flag array; and successively arranging the record number into a newly provided ordered set array for output in a case where the state of the flag is on (see Kosho, paragraphs [0022]-[0025] and Furusho, col 10, lines 55 through col 12, line 26; the item values to be searched/retrieved are specified in the value list and pointer list and the corresponding position in a flag array is set; the results or result set is provided as output).

10. With regard to claims 6 and 18-19, Kosho and Furusho disclose creating a classification array in which a classification number indicating a category of a value is arranged correspondingly to an element of the second value list; specifying a record

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number in the ordered set array corresponding to the specified classification number; and performing aggregation using a predetermined value list item value indicated by the specified record number (see Kosho, paragraphs [0023]-[0025] and Furusho, col 11, line 25 through col 12, line 26; a classification array is used and the values of the array correspond to the values of the value lists where the specified record numbers are gathered/aggregated).

11. With regard to claims 7 and 21-22, Kosho and Furusho disclose calculating an existence number as the number of elements indicated by the second pointer array for each value of the second value list; creating, based on the existence number, a cumulative number array corresponding to a value of the second value list and indicating a head position at which a record number in the ordered set array is to be arranged; and referring to the cumulative array and arranging a record number of the ordered set array into an array for output so that a sort order of the item values in the value list is reflected (see Kosho, presence number, paragraphs [0023]-[0027] and Furusho, col 11, line 25 through col 13, line 3; the presence or existence of elements/records is calculated and a number array is arranged with a head/start position and is used as a result set or output).

12. With regard to claims 8 and 24-25, Kosho and Furusho disclose finding an item to be shared in each of the plural tabular format data; equating item values in the second value list of the information block relating to the item; and in response to

equating the item values, updating an element in the second pointer array in each of the information blocks in accordance with a change in arrangement of the item values (paragraphs [0012] and [0023]-[0027] and Furusho, col 11, line 25 through col 13, line 3; items/records our searched and found where the items/records are found to be equivalent/equated and then they are joined and ordered/sorted according to the sorting order of the items/records).

***Allowable Subject Matter***

13. Claims 17, 20, 23, 26, and 29-34 are allowed.

***Reasons for Allowance***

14. The following is a statement of reasons for the indication of allowable subject matter:

15. With regard to independent claim 29, this claim recites limitations that are substantially similar to the limitations found in claim 1. As discussed above, Kosho and Furusho disclose the limitations of claim 1. However, claim 29 recites an additional limitation. This limitation is step (c) and it recites “comparing a size of the ordered set array with a size of the first value list, wherein, as a result of the comparison when size of the array is smaller than the size of the first value list at a predetermined rate, then steps (d) and (e) are performed”.

16. Kosho and Furusho do not appear to explicitly disclose the above cited claim limitation. Kosho and Furusho disclose the other steps (i.e. steps (d) and (e)); however,

Kosho and Furusho do not appear to place any conditional limitation on when to perform steps (d) and (e). Kosho and Furusho further teach duplication detection between arrays. Despite the teachings of duplicate detection, Kosho and Furusho do not appear to perform any particular actions after detecting duplicates (e.g. removing or deleting the duplicates) except for specialized expansion of the array. The claim limitations explicitly recite that a comparison is made to determine if the ordered set array is smaller than the first value list and then if so, performing steps (d) and (e). As shown above, the cited prior art references do not teach such a comparison step.

***Affidavit/Declaration Under 37 C.F.R. 1.132***

17. The declaration under 37 CFR 1.132 filed 3/15/2010 is insufficient to overcome the rejection of claims 1-3, 5-11, 15-26, and 29-34 based upon the teachings of the Shinji Document (JP 2000-339390) under 35 USC 102(b) as set forth in the last Office action because: the declaration refers only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

18. The Declaration states in pages 1 through 3 that the Shinji Document (hereinafter referred to as the “Kosho document”) and the Furusho patent are by the same inventor despite different names. The Examiner reviewed the evidence and agrees that both the Furusho patent and Kosho document are by the same inventor. The Declaration further summarizes the teachings of both the Furusho patent and the Kosho document and

concludes that steps (b), (c), and (d) are not taught as recited in the independent claims (see page 4 through paragraph 10 on page 6). The Declaration further states (see paragraph 11 on page 6 through paragraph 12 on page 7) that the inventor sees "no facts adduced by the Examiner to rebut my assertion that the subject matter disclosed" by the Kosho document and the Furusho patent includes the above noted limitations of steps (b) through (d) and also that the inventor disagrees with the "Examiner's contention" that the inventor has "no factual basis for my opinion" with regard to whether the Kosho document and the Furusho patent teach the limitations of steps (b) through (d). The Examiner respectfully disagrees. With regard to the "Examiner's contention" argument, the Examiner stated last time that mere arguments cannot take the place of factually supported objective evidence. The Examiner agrees that the specification of the instant application versus the Furusho patent and Kosho document are different; however, the specification of the Kosho document and Furusho patent disclose various tables and arrays that are substantially similar to those presented in the instant application's claims. The inventor asserts that they are different; however, the language of the claims describes the various arrays in a manner that is substantially similar to the arrays in the disclosures of the Kosho document and the Furusho patent. With regard to the "no facts adduced" argument, the Examiner has mapped the various arrays to the Kosho document and the Furusho patent thus providing the evidence and facts to show how the claim limitations are similar to the teachings from the Kosho document and Furusho patent.

19. The Declaration also states in paragraph 13 on page 7 that the Kosho Document and the Furusho patent are directed to different methods than is being used by the instant application. The Examiner respectfully disagrees. The particular argument is directed towards the purpose of the claims rather than the method. As noted above, both the Kosho Document and the Furusho patent teach the method steps as disclosed in the claims. The purpose of the Kosho Document and the Furusho patent may be different; however, both use substantially the same method as the instant application.

20. The Declaration further states (see paragraph 14 on page 8) that the Kosho Document and the Furusho patent does not teach or suggest an “ordered set array containing record numbers of records selected from the array of records”. The Examiner respectfully disagrees. In particular, the Furusho patent discusses in column 4, lines 15-20 that a count array is created where the count array is sorted to a stipulated order (i.e. ordered set) and involves number of records (i.e. record numbers of records) where the number of records are based on the array of records (i.e. selected from). As shown, the cited prior art teach the above cited claim limitation.

21. The Declaration argues in paragraph 15 on page 8 that the Kosho Document and the Furusho patent do not teach step (d). Upon review of the cited sections of the Kosho document and the Furusho patent, the Examiner agrees with the Declaration’s arguments that the cited sections do not teach step (d). However, upon further review of the Kosho document and Furusho patent, it appears that the Kosho document and the Furusho patent do in fact teach the claim limitations elsewhere in their respective disclosures as discussed above in the 35 USC 102(b) rejections.

***Response to Arguments***

22. Applicant's arguments (see the first paragraph in section C on page 24) with respect to the 35 USC 112 rejections have been fully considered and are persuasive. The 35 USC 112 rejections of the claims have been withdrawn. The applicant has amended the claims to cancel claims 4, 12-14, 27, and 28 therefore the rejection to those claims have been withdrawn. With regard to claims 5-8 and 15-26, the Examiner construed that claims 5-8 and 15-26 required that the appropriate independent claim (i.e. claims 1, 3, or 29) to be executed/Performed first in order to create the second pointer array and the second value list. The applicant did not traverse the Examiner's interpretation therefore the interpretation as noted above is still being used and the 35 USC 112, second paragraph rejection to claims 5-8 and 15-26 has been withdrawn.

23. Applicant's arguments (see the second to last paragraph on page 24 through the second paragraph on page 28) have been fully considered but they are not persuasive. The applicant argues that the Kosho document and the Furusho patent do not teach steps (b) through (d) of the independent claim. These arguments are substantially similar to the arguments presented above in the Declaration. The Examiner respectfully disagrees. As discussed above with regard to the Declaration, the method disclosed in the claim limitations are described by the Furusho patent and the Kosho document.

24. Applicant's arguments (see the last paragraph on page 28 through the last paragraph on page 31) with respect to claims have been considered but are moot in view of the new ground(s) of rejection. The applicant provided arguments discussing the reason for the proposed modification and traverses any official notice relied on by the Examiner. The arguments are moot in view of the new ground of rejection. The arguments were directed to the rejection of the claims under 35 USC 103(a); however, the applicant argued the sub tabular format data and based on the argument, it appeared that the cited section did not teach the limitations within the context of the other claim limitations. Upon further review of the Furusho patent and Kosho document, the Examiner discovered a different section that disclosed the claim limitations therefore a new ground of rejection has been made under 35 USC 102(b).

25. Applicant's arguments (see the first paragraph on page 32 through the last paragraph on page 38) have been fully considered but they are not persuasive. The applicant argues that the Kosho document and Furusho patent do not all the claim limitations. In particular, the applicant argues that substantial evidence has been filed to establish that the Kosho Document and the Furusho patent do not teach, or suggest, each and every limitation of the claims. The applicant's arguments rely on the First Furusho Declaration and argue that the "Examiner's contention that the First Furusho Declaration is not commensurate with the claims is unreasonable, and must be withdrawn". The Examiner respectfully disagrees. The First Furusho Declaration does mention the claims. However, the declaration has only listed the claim limitations that

the applicant believes are not taught by the Kosho Document or the Furusho patent. As noted above in the 35 USC 102(b) rejections, the Examiner has mapped those claim limitations to various parts of the Kosho Document and the Furusho patent. The First Furusho Declaration and the applicant's arguments merely state that the claim limitations are not taught despite the Examiner indicating that the claim limitations, as written, are taught by the Kosho Document and the Furusho patent. The applicant argues that the Examiner has not met the burden of indicating where in the prior art the teaching appears. To the contrary, the Examiner has mapped the claim limitations to various parts of the disclosure of the Kosho Document and Furusho patent. Thus, the burden has been met. The applicant responded by saying that those limitations are not taught but has not indicated why the Furusho patent and the Kosho Document do not teach the claimed limitations as mapped by the Examiner. The purpose of the Kosho Document and the Furusho patent may be different; however, both use substantially the same method as disclosed in the claims of the instant application.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC SOMERS whose telephone number is (571)270-3567. The examiner can normally be reached on 9 am - 5 pm EST Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trujillo can be reached on (571) 272-3677. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. S./  
Examiner, Art Unit 2159  
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/James Trujillo/  
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